

Senate Bill 1479(2019) Regulation of Development in Karst

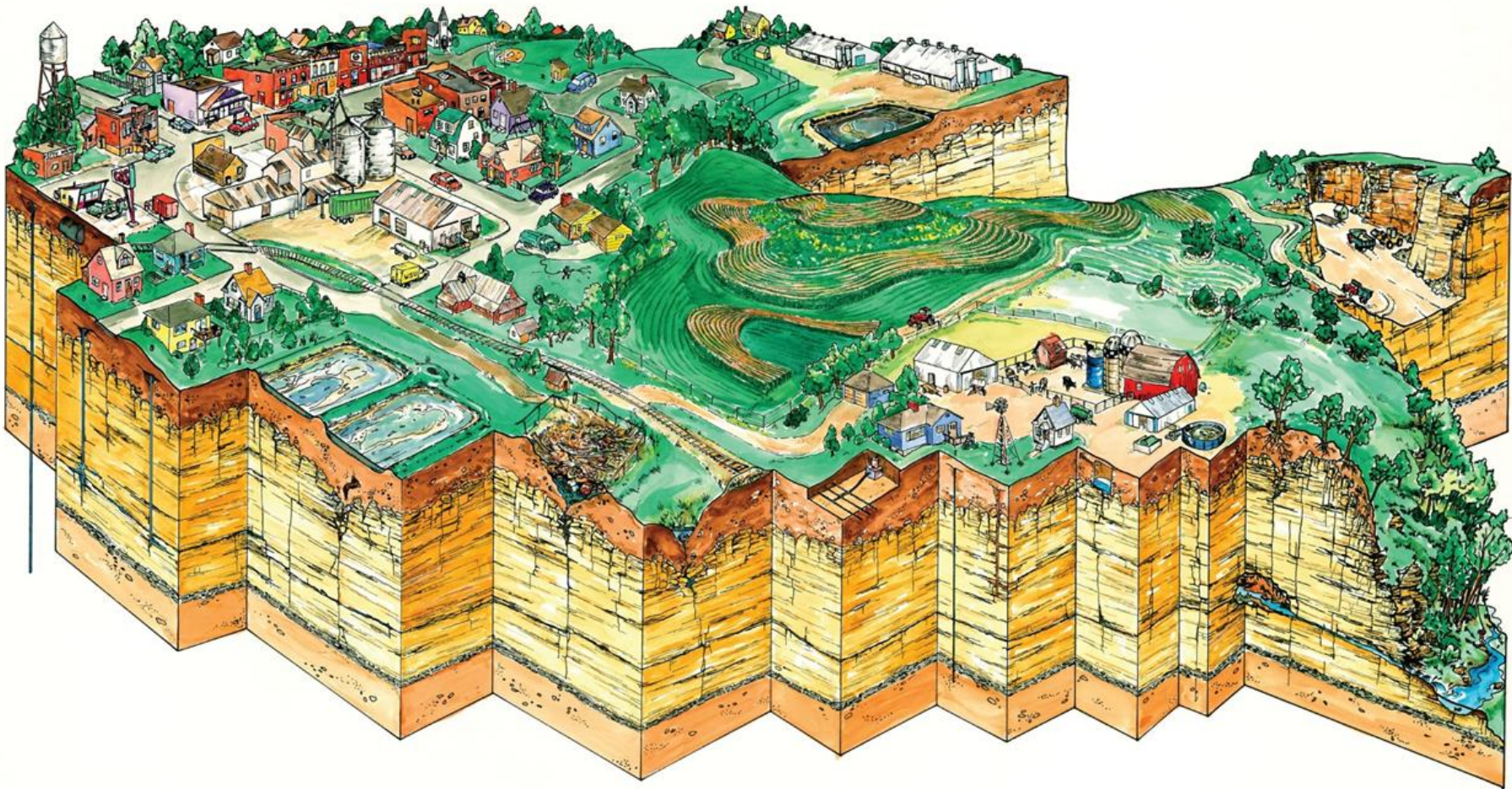
Virginia Housing Commission

Department of Conservation and Recreation

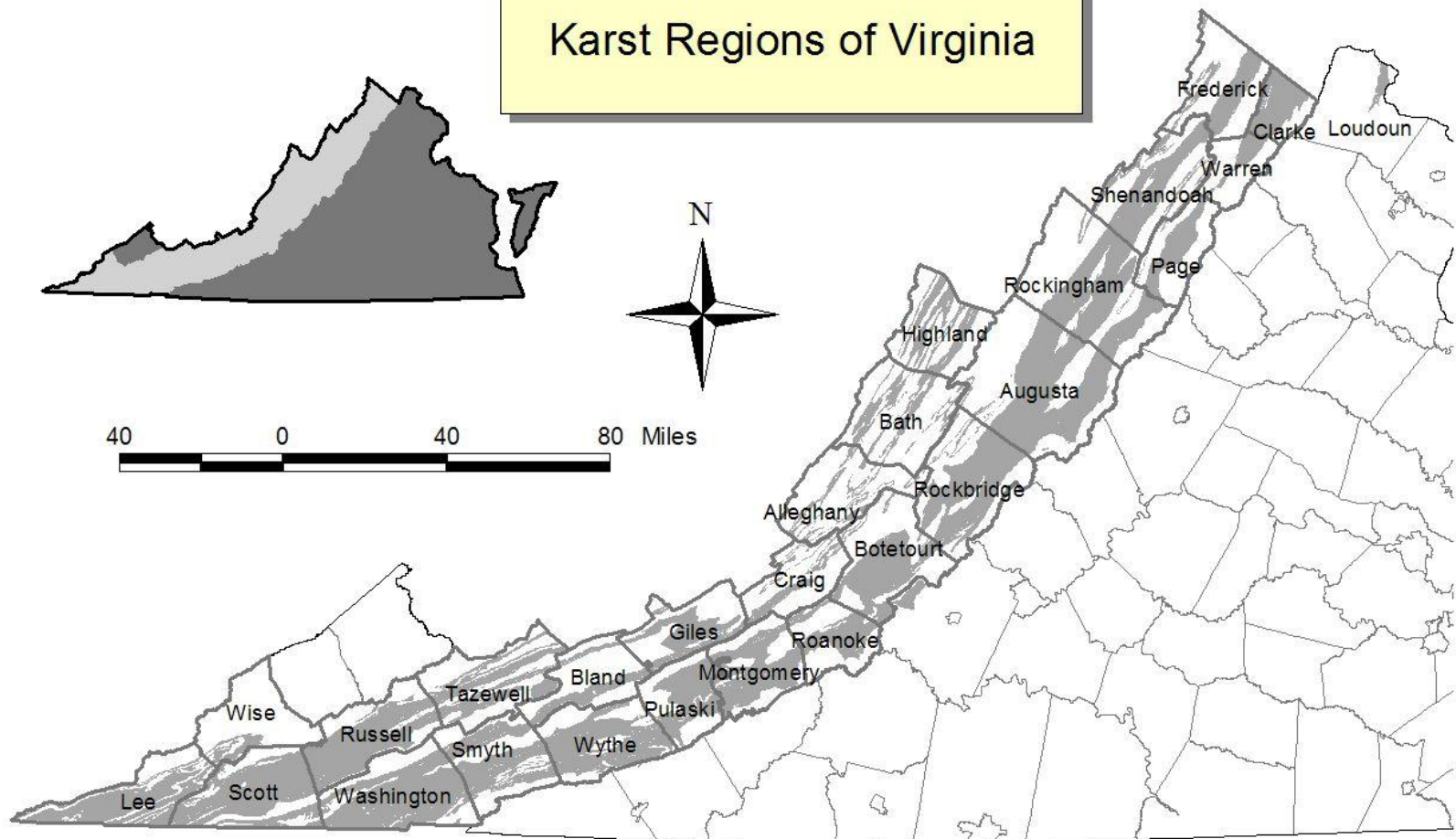
November 13, 2019

What is Karst

"Karst" IS a landscape produced by the dissolution of bedrock, typically characterized by sinkholes, sinking and losing streams, swallets, caves, springs, underground water flow that may pass beneath surface topographic divides, or a lack of surface streams compared with other landscapes.



Karst Regions of Virginia



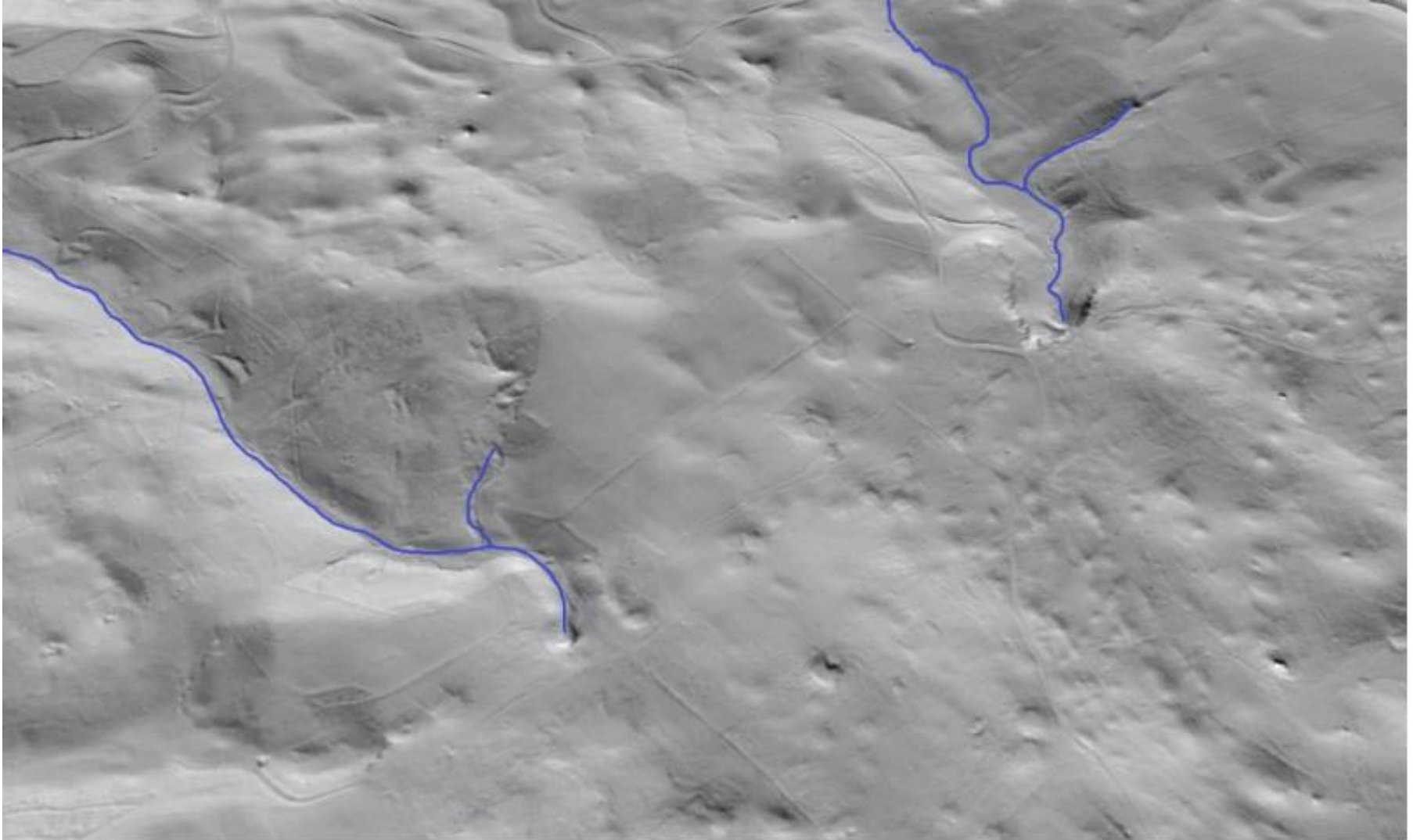
Karst in Virginia (Scott Co.) - sinkholes



Karst in Virginia (Scott Co.) - sinkholes



Karst in Virginia (Scott Co) - swallets



Why is DCR involved?

- Cave Protection Act – protect cave life, mineral & archeological resources, ground water flow...
- 4,100 caves in Virginia;
- Karst aquifers provide 75% of the drinking water in 27 western counties;
- 110 globally significant animal species;
- With our one General Funded karst expert on staff, when a homeowner or local official has a problem, they call us.



Lirceus usdagalun Federal Endangered
Lee County Cave Isopod



Why do we care?



A Honda Fit is balanced on the edge of a sinkhole that opened up under the driveway of a residence on Skyмонт Road on Tuesday, Jan. 26, 2016. (Photo: Mike Tripp, Mike Tripp/The News Leader)

"In the interest of safety, and because of the road and the karst, we didn't want to work last night.," "I felt it prudent to condemn the structure and prohibit occupancy until such time as the appropriate evaluation can be completed," said City Building Official. Staunton, Virginia

Page County, Result of well-drilling (2000)



Sinkholes in Wytheville Walmart Stormwater Retention Basin (2013)



US 460 in Christiansburg (2019)



Rockbridge County (2005)



Collapsed Sinkhole in Shenandoah County (2019)





Why do we care?

- A karst feature survey and plan as described in the bill costs \$15,000 to \$20,000 for a 100 acre property. For a lot up to 10 acres the cost is minimal to \$5,000+ depending on the number of caves, voids and sinkholes.
- Karst damage and remediation costs in the mid-Atlantic region ranging from \$30,000 to \$17,000,000. U.S. Geological Survey 2017
- Protection from not just sinkholes but also voids, what we can see and cannot see:
 - In 2013, Jeffrey Bush was killed in Florida by a void that was not known to exist at the surface when his house was built (it swallowed him up while he sat in his bed watching TV).



House collapsed into a sinkhole in Clarke County, Virginia during pumping of a newly drilled groundwater supply well.

Why do we care? (Cont.)

- In April of 2000, thirty-two sinkholes were reported in the upper Shenandoah Valley after seven inches of rain fell after a long dry spell.
- Federal Emergency Management Agency, the number of human-induced sinkholes has doubled since 1930, insurance claims have increased 1,200%.
- Most insurance companies in Virginia do not offer karst protection insurance.

SB 1479 as Introduced & As recommended for reporting by subcommittee

1. That the Code of Virginia is amended by adding a section numbered [15.2-909.1](#) as follows:

§ [15.2-909.1](#). *Regulation of karst feature mitigation. (15.2-900 General Powers of Local Gov)*

A. *For purposes of this section:*

"Karst feature" means any sinkhole, swallet, or cave, whether pre-existing or newly formed.

"Mitigation" means filling, repairing, or in any way altering.

B. *Any locality may by ordinance regulate the mitigation of any karst feature. Such regulation may provide for (i) a permit to mitigate any karst feature, (ii) disclosure by a landowner of the location and associated permit documents of any mitigated karst feature upon the sale or transfer of any property or of any legal interest therein, or (iii) the retention of public records related to the location of mitigated karst features.*

1. That the Code of Virginia is amended by adding a section numbered [15.2-2295.3](#) as follows:

§ [15.2-2295.3](#). *Regulation of development in karst. (15.2-2280+ Zoning)*

As part of the application process for rezoning property from an agricultural use to a residential use, any locality may, by ordinance, require (i) the submission of a geological and geophysical survey to ensure the geologic suitability of the site for real property development, including assessing any karst features within the property; and (ii) the development of a karst management plan by a professional geologist or professional geotechnical engineer that may include but not be limited to the identification of karst features and measures for the mitigation or protection of karst features from impacts of construction activities. ; and (iii) ~~a written disclosure statement to the prospective purchaser of such property and a statement on the deed and record plat that identifies the presence and locations of karst features.~~ For purposes of this section, "karst feature" means any sinkhole, cave, or other substantial subsurface void on such real property.

Bill modification:

The original bill has been modified to:

- Now limited to properties being rezoned from agricultural to residential class – *too narrow*.
- The definition of Karst Features has been refined to sinkholes, voids and caves.
- The scope has been narrowed to the property in question.
- The written disclosure statement to the prospective purchaser of such property and a statement on the deed and record plat that identifies the presence and locations of karst features was removed thus *largely negating the purpose of the bill to protect future homebuyers*.

Karst area Counties that Lack Zoning

- Wythe County
- Tazewell County
- Russell County

Does this authority already exist?

Within the past year we have heard from localities throughout western VA ranging from Clarke and Warren to Roanoke and Radford. **Seven localities** Warren, Loudoun, Clarke, Radford, Christiansburg, Blacksburg, and Roanoke have expressed the need for local authority.

While not an “official opinion,” the OAG in a review of the Code of Virginia in an attempt to identify statutory authority for karst regulation as provided in SB1479 reached a view that localities do not have the powers that would have been granted under sb1479 (2019).

None of the statutes provide the kind of authority required under the Dillon rule Article 1 of Chapter 9 of Title 15.2, Chapter 12, Chapter 22 all do not provide the needed authority under the Dillon rule.

Staff were unable to identify any statute that grants the karst powers “in express terms” or an implied or incidental authority for regulating karst.